

Serial No. 10/743,223  
Docket No. SO0037 US NA

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AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A lube oil composition comprising:
  - (a) poly(trimethylene-ethylene ether) glycol base stock produced from the acid-catalyzed polycondensation of 1,3-propanediol and 1,2-ethanediol, and
  - (b) at least one lube oil additive.
2. (Previously Presented) The lube oil composition of claim 1, wherein the lube oil additive comprises at least one of ash-less dispersant, metal detergent, viscosity modifier, anti-wear agent, antioxidant, friction modifier, pour point depressant, anti-foaming agent, corrosion inhibitor, demulsifier, rust inhibitor, or mixtures thereof.
3. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a number average molecular weight of 500 to 5000.
4. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a number average molecular weight of 700 to 4000.
5. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a number average molecular weight of 1000 to 3000.
6. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a molecular weight distribution of 1.2 to 2.2.
7. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a molecular weight distribution of 1.4 to 2.0.
8. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a molecular weight distribution of 1.4 to 1.8.

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9. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a kinematic viscosity at 40°C of about 50 to about 2000 centistokes.

10. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a kinematic viscosity at 40 °C of about 100 to about 1500 centistokes.

11. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a kinematic viscosity at 40°C of about 150 to about 1000 centistokes.

12. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a viscosity index of 150 to 350.

13. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a viscosity index of 175 to 325.

14. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a viscosity index of 200 to 300.

15. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a pour point of -75 to 0°C.

16. (Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a pour point of -60 to -10°C.

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17.(Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock has a pour point of -50 to -20°C.

18.(Original) The lube oil composition of claim 1, wherein the poly(trimethylene-ethylene ether) glycol base stock is water-insoluble.

19.(Original) The lube oil composition of claim 1, further comprising additional base stock.

20.(Previously Presented) The lube oil composition of claim 19, wherein the additional base stock comprises at least one of hydrocarbonaceous base stock, synthetic base stock, or mixtures thereof.

21.(Original) The lube oil composition of claim 19, wherein the additional base stock comprises synthetic base stock.

22.(Canceled)

23.(Canceled)

24.(Currently Amended) The lube oil composition of claim ~~22~~ 1, wherein at least one of the 1,3-propanediol or 1,2-ethanediol is derived from a renewable source.

25.(Currently Amended) The lube oil composition of claim ~~22~~ 24, wherein the 1,3-propanediol is derived from a renewable source.

26.(Canceled)

27.(Canceled)

28.(Canceled)

29.(Canceled)

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30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Previously Presented) The lube oil composition of claim 1, wherein said composition is mixed with at least one tetrafluoroethane.

35. (Canceled)

36. (Previously Presented) The lube oil composition of claim 1, wherein said composition is free of pour point depressant additive.

37. (Canceled)

38. (Previously Presented) The lube oil composition of claim 1, wherein said composition is free of viscosity index improver additive.

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

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45. (New) A refrigerant system comprising a refrigerant and refrigerant lubricant, wherein the refrigerant lubricant comprises:

- (a) poly(trimethylene-ethylene ether) glycol base stock and
- (b) at least one lube oil additive.

46. (New) The refrigerant system of claim 45, wherein the refrigerant is a tetrafluroethane.

47. (New) The refrigerant system of claim 45, wherein the poly(trimethylene-ethylene ether) glycol base stock is produced from the acid-catalyzed polycondensation of 1,3-propanediol and 1,2-ethanediol.

48. (New) The refrigerant system of claim 47, wherein the refrigerant is a tetrafluroethane.

49. (New) The refrigerant system of claim 47, wherein at least one of the 1,3-propanediol or 1,2-ethanediol is derived from a renewable source.

50. (New) The refrigerant system of claim 48, wherein the 1,3-propanediol is derived from a renewable source.

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